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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/021,621	HORVITZ ET AL.
	Examiner	Art Unit	
	Peling A. Shaw	2144	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>14 May 2007</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-85* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-85* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Continued Examination under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set forth in

37 CFR 1.17(e), was filed in this application after final rejection. Since this application is

eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e)

has been timely paid, the finality of the previous Office action has been withdrawn pursuant to

37 CFR 1.114. Applicant's submission filed on 05/14/2007 has been entered. Claims 1, 23, 40-

41, 55 and 78-81 are amended. Claims 1-85 are currently pending.

2.   Amendment received on 07/11/2005 was entered. Claims 1, 13, 23, 25, 40-41, 55 and 78

were amended.

Priority

3.   This application claims benefit of 60/255,016 on 12/12/2000. The filing date is

12/12/2001.

Claim Rejections - 35 USC § 112, first paragraph

4.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making
> and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it
> pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode
> contemplated by the inventor of carrying out his invention.

Claims 1-22 and 41-54 are rejected under 35 U.S.C. 112, first paragraph, as containing

subject matter which was not described in the specification in such a way as to reasonably

convey to one skilled in the relevant art that the inventor(s), at the time the application was

filed, had possession of the claimed invention.

a. - Claims 1 and 41 are amended with a limitation of "...wherein a <u>higher value</u> for the

one or more <u>acoustical property</u> results in a <u>higher</u> assigned <u>priority</u> ..." that is not

found in the original specification or claims. Although the amended changes seem not

affect the applying of prior arts in the following rejections, these changes seem to

modify the scope of the invention and introduce new subject matter into the

application. It would require undue experimentation for one of ordinary skill in the

networking art at the time the invention was made to be able to add and test these new

functions for implementation. Claims 1, 41, their depending claims 2-21 and 42-54

are thus rejected. For the purpose of applying art, the amended changes will be

considered.

Appropriate corrections are required.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign
country or in public use or on sale in this country, more than one year prior to the date of
application for patent in the United States.

Claims 23-26 and 34-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Robert

M. Losee, Jr. (Minimizing Information Overload: The Ranking of Electronic Messages),

hereinafter referred as Losee.

a.   Regarding claim 23, Losee disclosed a method associated with message delivery,

comprising: generating a priority associated with a message, wherein the message is

assigned a predetermined priority associated with a communication channel from

which the message is received (abstract; 1st paragraph in section 4 on page 182: from

one's superior, organization, specified topic); determining an expected loss of non-

review of the message at a current time based at least on the message priority and an

expected rate of lost opportunity for the user resulting from non-review of the

message as a function of time; determining an expected cost of outputting the

message at the current time; and alerting a user of the message in response to

determining that the expected loss is greater than the expected cost (page 181, left

column, last paragraph-page 182, right column, 1st paragraph).

b. Regarding claim 24, Losee disclosed the method of claim 23, the expected loss of

non-review comprises determining a likelihood that the user will review message text

at a future time (page 181, left column, last paragraph-page 182, right column, 1st

paragraph).

c. Regarding claim 25, Losee disclosed the method of claim 23, the expected loss of

non-review comprises determining a current expected rate of lost opportunity for the

user resulting from non-review of the message as a function of time is non-linear

(page 181, left column, last paragraph-page 182, right column, 1st paragraph).

d. Regarding claim 26, Losee disclosed the method of claim 23, wherein the priority is

generated by a classifier configured as at least one of a Bayesian classifier and a

support-vector machine classifier (page 182, left column, 2nd and 3rd paragraphs).

e. Regarding claim 34, Losee disclosed the method of claim 23, further comprising

determining an expected criticality for the prioritized messages (page 181, left

column, last paragraph-page 182, right column, 1st paragraph).

f. Regarding claim 35, Losee disclosed the method of claim 34, wherein the expected

criticality (EC) is expressed as:

$$EC = \sum_i C^d(H_i)p(H_i \mid E^d)$$

wherein C is a cost function that relates to a cost rate at which cost is accrued, d is a

delay, E is an event, and H is a criticality class (page 181, left column, last paragraph-

page 182, right column, 1st paragraph).

g. Regarding claim 36, Losee disclosed the method of claim 34, wherein the expected

criticality is expressed as a function of time (page 181, left column, last paragraph-

page 182, right column, 1st paragraph).

h. Regarding claim 37, Losee disclosed the method of claim 36, an expected loss is

expressed as at least one of:

$$EL = \sum_i^n p(critical_i)C(critical_i)t; \text{ and}$$

$$EL = \int_0^t p(critical_i)C(critical_i,t)dt$$

wherein EL is an expected loss, p(critical$_i$) is a probability that a message has

criticality *i*, C(critical$_i$) is a cost function for the message having the criticality *i*, *n* is

a total number of criticality classes minus one, and *t* is the time delay before

reviewing the message (page 181, left column, last paragraph-page 182, right column,

1st paragraph).

i. Regarding claim 38, Losee disclosed the method of claim 37, the expected loss is

expressed as at least one of:

$$EL' = \sum_j p(t_j|E)\sum_i^n p(critical_i)C(critical_i)t_j; \text{ and}$$

$$EL' = \sum_j p(t_j|E) \int_0^{t_j} p(critical_i) C(critical_i, t) dt$$

wherein EL is an uncertainty in time of delay, E represents one or more observations

about a user state, and i and j are indexes, i and j being integers (page 181, left

column, last paragraph-page 182, right column, 1st paragraph).

j. Regarding claim 39, Losee disclosed the method of claim 38, E is at least one of a

calendar, a room acoustic, a desktop activity, a time since last touched an active

device (page 181, right column, section 4, first paragraph: schedule, feature).

Losee disclosed all limitations of claims 23-26 and 34-39. Claims 23-26 and 34-39 are

rejected under 35 U.S.C. 102(b).

6.   Claims 78-85 are rejected under 35 U.S.C. 102(e) as being anticipated by Abu-Hakima

(US 6499021 B1), hereinafter referred as Abu-Hakima.

a. Regarding claim 78, Abu-Hakima disclosed a user interface for an adaptive

prioritization and routing system, comprising: one or more controls and displays to

acquire message priority settings associated with the adaptive prioritization and

routing system (column 8, line 36-48; column 9, line 15-39); and a user interface

associated with the one or more controls and displays that provides at least a user

adjustable control of an amount of messages received via the message priority

settings and a feedback directed to the user relating to the settings (column 8, line 36-

48; column 9, line 15-39; column 11, line 19-25), the feedback includes a quantity

indicating the number of messages that would have been transmitted to a user within

a specified bound in time based upon the priority settings (column 10, line 41-63:

trace and record indexed store of user actions, e.g. deleting, filing and forwarding or simple reading, learning by analogy algorithm).

b. Regarding claim 79, Abu-Hakima disclosed the user interface of claim 78, the feedback includes at least one of a quantity of alerts that would have been transmitted to the user within a specified bound in time (column 7, line 25-64; column 9, line 15-39; column 11, line 19-25).

c. Regarding claim 80, Abu-Hakima disclosed the user interface of claim 78, further comprising monitoring user actions for each of several different routing parameters based upon a threshold on importance required to send a message beyond the parameters that were employed (column 10, line 13-23).

d. Regarding claim 81, Abu-Hakima disclosed the user interface of claim 78, further comprising a user display including at least one of what would have happened had the settings been changed, and a display for a set of thresholds along a continual scale thresholds (column 8, line 36-48; column 9, line 15-39).

e. Regarding claim 82, Abu-Hakima disclosed the user interface of claim 81, the feedback further comprising previously tracked numbers of messages that would have been received at different simulated values of the threshold (column 10, line 41-63).

f. Regarding claim 83, Abu-Hakima disclosed the user interface of claim 82, further comprising providing feedback over at least one of a day, week, and month that is displayed at respective settings so as to be reviewed by users as guides to roughly predict future behavior of the adaptive prioritization and routing system for potential settings of the threshold (column 8, line 49-56).

g. Regarding claim 84, Abu-Hakima disclosed the user interface of claim 82, further

comprising employing recent history as a predictor of the future (column 10, line 41-

63).

h. Regarding claim 85, Abu-Hakima disclosed the user interface of claim 82, further

comprising advanced simulations that are employed to perform "what-if" analyses for

at least one of different settings, parameters and policies, such that new settings can

be based on an expected number of alerts per given timeframe at different settings

(column 8, line 49-56).

Abu-Hakima disclosed all limitations of claims 78-85. Claims 78-85 are rejected under 35

U.S.C. 102(e).

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or
described as set forth in section 102 of this title, if the differences between the subject matter
sought to be patented and the prior art are such that the subject matter as a whole would have
been obvious at the time the invention was made to a person having ordinary skill in the art
to which said subject matter pertains. Patentability shall not be negatived by the manner in
which the invention was made.

Claims 1-5, 9-10, 19 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Smith, et al., (US 6,463,462 B1), hereinafter referred as Smith in view of Badt, et al. (US

6542868 B1), hereinafter referred as Badt and Eric, et al. (The Lumiere Project), hereinafter

referred as Eric.

a. Smith shows (claim 1) a user interface to manage electronic messages, comprising: a

display providing one or more display objects associated with delivery of one or more

messages, the messages being automatically classified according to a respective

priority value; and one or more inputs associated with the display objects to facilitate

adaptation of the user interface to one or more preferences of a user (Figs. 4 and 20-

22; column 6: line 1-39; column 10, line 57-60: The message form displays the

quantity and type of devices to receive messages, as obtained from the various

collective recipient profiles). Smith also shows (column 11, line 33-37) any recipients

of system messages that are not profiled will receive e-mail by default, with a

reminder to set up their profile to take full advantage of the communications,

scheduling and priority extensions to enhance their business productivity. Smith does

not show (claim 1) the one or more inputs includes at least one or more user

preferences for assembling a priority value to a voice message based at least in part

on one or more acoustical properties of the voice message, , wherein the one or more

acoustical properties include at least one of temporal rate pattern, pitch, inflection, or

overall energy associated with the voice message, and wherein a higher value for the

one or more acoustical property results in a higher assigned priority.

b. Badt shows (claim 1) the one or more inputs includes at least one or more user

preferences for assembling a priority value to a voice message based at least in part

on one or more acoustical properties of the voice message (column 4, line 40-60) in

an analogous art for the purpose of audio notification management system.

c. Eric shows (claim 1) wherein the one or more acoustical properties include at least

one of temporal rate pattern, pitch, inflection, or overall energy associated with the

voice message, and wherein a higher value for the one or more acoustical property

results in a higher assigned priority (2nd paragraph on left column on page 2: acoustic

clues; 5th paragraph on right column on page 5 to 3rd paragraph on left column on

page 6: temporal pattern recognition with rate consideration) in an analogous art for

the purpose of Bayesian user modeling for inferring the goals and needs of software

users.

d. It would have been obvious to a person of ordinary skill in the art at the time of the

invention was made to modify Smith's functions of delivering messages and

processing message responses with Badt's functions of audio notification

management and Eric's functions of inferring software users with acoustic clues.

e. The modification would have been obvious because one of ordinary skill in the art

would have been motivated to integrate audio notification functions per Badt's

teaching and inferring software users with acoustic clues per Eric's teaching into a

universal message management system per Smith's teaching (column 11, line 33-37:

take full advantage of the communications, scheduling and priority extensions to

enhance their business productivity).

f. Regarding claim 2, Smith shows the one or more display objects including one or

more profiles that relate to a time and manner of delivery of the one or more

messages (column 6, line 21-23: Upon selection of profile manager 162, the user

chooses 172 to create a profile 174 for each priority; column 6, line 31-33: Upon

selection of schedule manager 164, the user chooses 178 to add a new schedule 180

by assigning profiles previously created to date formulas; column 6: line 13-15: Upon

selection of device manager 160, the user chooses 166 to add and configure new devices 168 for receipt of messaging information sent by the system 10).

g. Regarding claim 3, Smith shows the one or more profiles relating to an active profile and a default profile configurable by the user (column 11, lines 33-37 and 59-67: recipient not profiled receive by default, setup profile reminder, system default).

h. Regarding claim 4, Smith shows the one or more profiles are associated with one or more delivery options for sending the messages to a device (column 6: line 13-15: Upon selection of device manager 160, the user chooses 166 to add and configure new devices 168 for receipt of messaging information sent by the system 10).

i. Regarding claim 5, Smith shows the one or more delivery options including at least send messages to a mobile device (column 6: line 15-17: These include multiple e-mail, voicemail, fax, pager, telephone and wireless communication devices).

j. Regarding claim 9, Smith shows the one or more profiles including at least one of a calendar and time setting associated with the one or more display objects (column 9, line 18-20: Finally, the recipient selects the "schedules" tab so that the recipient can assign the various profiles to dates and times).

k. Regarding claim 10, Smith shows the one or more profiles are associated with at least one of work, home, out of office and do not disturb (column 6, line 24-26: The profile designates locations such as work, home, vacation, travel office, travel accommodations and other user preferences).

l. Regarding claim 19, Smith shows further comprising one or more device options relating to how messages are displayed on a device (column 6, line 42-44).

    m. Regarding claim 22, Smith shows the one or more device options further comprising configuring display information relating to a sender of the messages (column 2, line 28-35).

Together Smith, Badt and Eric disclosed all limitations of claims 1-5, 9-10, 19 and 22.

Claims 1-5, 9-10, 19 and 22 are rejected under 35 U.S.C. 103(a).

8.   Claims 6, 13 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith, Badt, Eric and further in view of Wright, et al. (US 6,078,568 A), hereinafter referred as Wright.

    a. Smith, Badt and Eric show claims 1-2, 4 and 19 as above. None of Smith, Badt and Eric shows (claim 6) the delivery options including chunking options, the chunking options comprise at least one of holding and delivering messages until a predetermined time specified by the user, holding and delivering messages until a predetermined number of messages have accumulated, and holding and delivering messages based upon a predetermined inactivity of a computer.

    b. Wright shows (claim 6) the delivery options including chunking options, the chunking options of holding and delivering messages until a predetermined time specified by the user, holding and delivering messages until a predetermined number of messages have accumulated (column 27, line 26-34: wait for a predetermined number of data packets to be queued or for an implementation specific time) in an analogous art for the purpose of transmitting data packets over radio network using carrier sense multiple access (CSMA).

c. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Smith's functions of delivering messages and processing message responses with Badt's functions of audio notification management, Eric's functions of inferring software users with acoustic clues and Wright's functions of delivering e-mails to devices.

d. The modification would have been obvious because one of ordinary skill in the art would have been motivated to integrate audio notification functions per Badt's teaching, inferring software users with acoustic clues per Eric's teaching and e-mail delivery control per Wright's teaching into a universal message management system per Smith's teaching (column 11, line 33-37: take full advantage of the communications, scheduling and priority extensions to enhance their business productivity).

e. Regarding claim 13, Wright shows the one or more display objects including a reset of the amount of messages sent to the device (column 27, line 26-34: Prior to exiting from the idle state (1), the subscriber MAC layer shall set a state variable of the No.sub.-- Tx.sub.-- Attempts to zero).

f. Regarding claim 21, Wright shows the one or more device options further comprising limiting a number of messages sent (column 13, line 13-18), limiting the number of characters in the messages (column 10, line 2-6), and automatically resetting the number of messages sent,

Together Smith, Badt, Eric and Wright disclosed all limitations of claims 6, 13 and 21.

Claims 6, 13 and 21 are rejected under 35 U.S.C. 103(a).

9.   Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith, Badt,

Eric and further in view of Cooper, et al., (US 6757362 A), hereinafter referred as Cooper.

   a.   Smith, Badt and Eric show claims 1-2 as above. None of Smith, Badt and Eric shows

        (claim 7) the one or more profiles have an associated priority setting such that

        messages are transmitted based upon a threshold configurable by the user.

   b.   Cooper shows (claim 7) the one or more profiles have an associated priority setting

        such that messages are transmitted based upon a threshold configurable by the user

        (column 43, line 25-29: To change the tempo of the VA, the slider dragged to the

        desired position. For example, a user would set the tempo to slow when first learning

        how to use the VA, and after becoming more familiar with the VA, the tempo could

        be set to fast) in an analogous art for the purpose of assigning a tempo threshold for

        virtual assistant to recognize a command via a user voice input.

   c.   It would have been obvious to a person of ordinary skill in the art at the time of the

        invention was made to modify Smith's functions of delivering messages and

        processing message responses with Badt's functions of audio notification

        management, Eric's functions of inferring software users with acoustic clues and

        Cooper's slide adjustment function.

   d.   The modification would have been obvious because one of ordinary skill in the art

        would have been motivated to integrate audio notification functions per Badt's

        teaching, inferring software users with acoustic clues per Eric's teaching and profile

        management functions per Cooper's teaching into a universal message management

        system per Smith's teaching (column 11, line 33-37: take full advantage of the

communications, scheduling and priority extensions to enhance their business

productivity).

    e. Regarding claim 8, Cooper shows the priority setting associated with a display object

having a slider to adjust the threshold, the threshold having a range from high priority

messages sent to all messages sent to a mobile device (column 43, line 25-29: To

change the tempo of the VA, the slider dragged to the desired position. For example,

a user would set the tempo to slow when first learning how to use the VA, and after

becoming more familiar with the VA, the tempo could be set to fast).

Together Smith, Badt, Eric and Cooper disclosed all limitations of claims 7-8. Claims 7-8 are

rejected under 35 U.S.C. 103(a).

10.   Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith, Badt, Eric

and further in view of Matthew Marx (CLUES: Dynamic Personalized Message Filtering),

hereinafter referred as Marx.

    a. Smith, Badt and Eric show claim 1 as above. None of Smith, Badt and Eric shows

(claim 11) the one or more display objects including status information associated

with an amount of learning that has been achieved by a priorities system.

    b. Marx shows (claim 11) gathering the status information associated with an amount of

learning that has been achieved by a priorities system (page 114, left column, last

paragraph-right column first paragraph) in an analogous art for the purpose of

dynamic personalized message filtering.

    c. It would have been obvious to a person of ordinary skill in the art at the time of the

invention was made to modify Smith's functions of delivering messages and

processing message responses with Badt's functions of audio notification

management, Eric's functions of inferring software users with acoustic clues and

Marx's personalized message filtering feature.

    d.   The modification would have been obvious because one of ordinary skill in the art

would have been motivated to integrate audio notification functions per Badt's

teaching, inferring software users with acoustic clues per Eric's teaching and viewing

the feedback learning status per Marx's teaching into a universal message

management system per Smith's teaching (column 11, line 33-37: take full advantage

of the communications, scheduling and priority extensions to enhance their business

productivity).

Together Smith, Badt, Eric and Marx disclosed all limitations of claim 11. Claim 11 is

rejected under 35 U.S.C. 103(a).

11.   Claims 12 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith,

Badt, Eric and further in view of Eggleston et al. (US 6101531 A), hereinafter referred as

Eggleston.

    a.   Smith, Badt and Eric show claims 1 and 19 as above. None of Smith, Badt and Eric

shows (claim 12) the one or more display objects selectable to send a summary of

information to a device associated with the one or more messages.

    b.   Eggleston shows (claim 12) the one or more display objects selectable to send a

summary of information to a device associated with the one or more messages

(column 3, line 21-39) in an analogous art for the purpose of sending messages to a

wireless client.

c. It would have been obvious to a person of ordinary skill in the art at the time of the

invention was made to modify Smith's functions of delivering messages and

processing message responses with Badt's functions of audio notification

management, Eric's functions of inferring software users with acoustic clues and

Eggleston's functions of sending message summary and compressing message.

d. The modification would have been obvious because one of ordinary skill in the art

would have been motivated to integrate audio notification functions per Badt's

teaching, inferring software users with acoustic clues per Eric's teaching and

selecting message to be viewed on a device and compressing message for delivery

over a low bandwidth device per Eggleston's teaching into a universal message

management system per Smith's teaching (column 11, line 33-37: take full advantage

of the communications, scheduling and priority extensions to enhance their business

productivity).

e. Regarding claim 20, Eggleston shows the one or more device options further

comprising a selectable compression setting to control the amount of information

displayed (column 11, line 67-column 12, line 7).

Together Smith, Badt, Eric and Eggleston disclosed all limitations of claims 12 and 20.

Claims 12 and 20 are rejected under 35 U.S.C. 103(a).

12.   Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith, Badt, Eric

and further in view of Jonathan Isaac Helfman et al. (Ishmail: Immediate Identification of

Important Information), hereinafter referred as Helfman.

a. Smith, Badt and Eric show claim 1 as above. None of Smith, Badt and Eric shows (claim 14) the one or more display objects comprising one or more rules configurable by the user to effect delivery of the messages to a device, the one or more rules including selection options of at least one of sending messages based on importance, sending messages based on the user's name and a TO field, sending messages based on the user's name and a CC field, and sending messages based on a source of the message.

b. Helfman shows (claim 14) the one or more display objects comprising one or more rules configurable by the user to effect delivery of the messages to a device (page 5, right column, paragraph 5; page 2, left column, 3rd paragraph); the one or more rules including selection options of at least one of sending messages based on importance, sending messages based on the user's name and a TO field (page 6, left column, 3rd paragraph), sending messages based on the user's name and a CC field (page 6, left column, 3rd paragraph), and sending messages based on a source of the message (page 6, left column, 3rd paragraph) in an analogous art for the purpose of identifying important messages.

c. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Smith's functions of delivering messages and processing message responses with Badt's functions of audio notification management, Eric's functions of inferring software users with acoustic clues and Helfman's functions of setting rule in delivering specific messages to a specific device.

d. The modification would have been obvious because one of ordinary skill in the art
would have been motivated to integrate audio notification functions per Badt's
teaching, inferring software users with acoustic clues per Eric's teaching and filtering
of message delivery to a specific device (location) based upon the role, identification
and origination of message per Helfman's teaching into a universal message
management system per Smith's teaching (column 11, line 33-37: take full advantage
of the communications, scheduling and priority extensions to enhance their business
productivity).

Together Smith, Badt, Eric and Helfman disclosed all limitations of claim 14. Claim 14 is
rejected under 35 U.S.C. 103(a).

13.   Claims 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith,
Badt, Eric and further in view of Abu-Hakima.

a. Smith, Badt and Eric show claim 1 as above. None of Smith, Badt and Eric shows
(claim 15) further comprising providing feedback to the user via the one or more
display objects regarding learning associated with a priorities system.

b. Abu-Hakima shows (claim 15) further comprising providing feedback to the user via
the one or more display objects regarding learning associated with a priorities system
(column 11, line 19-25) in an analogous art for the purpose of intelligently managing
electronic messages.

c. It would have been obvious to a person of ordinary skill in the art at the time of the
invention was made to combine Smith's functions of delivering messages and
processing message responses with Badt's functions of audio notification

management, Eric's functions of inferring software users with acoustic clues and

Abu-Hakima's functions of automatic user knowledge and behavior learning system.

d. The modification would have been obvious because one of ordinary skill in the art

would have been motivated to integrate audio notification functions per Badt's

teaching, inferring software users with acoustic clues per Eric's teaching and

automatic user knowledge and behavior learning functions per Abu-Hakima's

teaching into a universal message management system per Smith's teaching (column

11, line 33-37: take full advantage of the communications, scheduling and priority

extensions to enhance their business productivity).

e. Regarding claim 16, Abu-Hakima shows the feedback includes information relating

to learning when messages are deleted by the user (column 10, lines 24-40).

f. Regarding claim 17, Abu-Hakima shows the feedback includes information relating

to where messages are learned from (column 10, lines 41-46).

g. Regarding claim 18, Abu-Hakima shows further comprising at least one of back-up,

restore, and reset options regarding the learning (column 10, lines 41-64).

Together Smith, Badt, Eric and Abu-Hakima disclosed all limitations of claims 15-18.

Claims 15-18 are rejected under 35 U.S.C. 103(a).

14.   Claims 27-33 are rejected under 35 U.S.C. 103(a) as being unpatentable Losee and

further in view of Eggleston.

a. Losee shows claim 23 as above. Losee does not show (claim 27) further comprising

providing a current profile selected from one of a plurality of profiles, at least a

portion of the plurality of profiles editable by the user to reflect a different context.

b. Eggleston shows (claim 27) further comprising providing a current profile selected from one of a plurality of profiles, at least a portion of the plurality of profiles editable by the user to reflect a different context (column 5, line 49-54; column 8, line 23-26) in an analogous art for the purpose of sending messages to a wireless client.

c. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to add Eggleston's communication server functions, message formatting, compressing and packetization functions into Loose's Message Presentation System after the messages is ranked and selected per decision rule.

d. The modification would have been obvious because one of ordinary skill in the art would have been motivated to combine user-definable message filtering profile functions, message formatting and compression functions in packet data network together with email prioritization and management functions per Eggleston's teaching (e.g. column 11, line 67-column 12, line 7).

e. Regarding claim 28, Eggleston shows the plurality of profiles is schedulable on a per-day and by-time basis (column 9, line 48-51).

f. Regarding claim 29, Eggleston shows the plurality of profiles provides a chunk setting such that the message is delivered to a communications modality in conjunction with one or more other messages (column 6, line 66-column 7, line 3).

g. Regarding claim 30, Eggleston shows the plurality of profiles provides a chunk setting such that the message is delivered to a communications modality when a specified period has expired (column 7, line 28-37).

h. Regarding claim 31, Eggleston shows further comprising, prior to alerting the user, formatting the message (column 11, line 67-column 12, line 7).

i. Regarding claim 32, Eggleston shows the formatting comprises compressing the message (column 11, line 67-column 12, line 7).

j. Regarding claim 33, Eggleston shows the formatting comprises fragmenting the message (column 7, line 8-13: packetized).

Together Losee and Eggleston disclosed all limitations of claims 27-33. Claims 27-33 are rejected under 35 U.S.C. 103(a).

15.   Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable Smith in view of Abu-Hakima.

a. Smith shows (claim 40) a user interface to manage electronic messages, comprising: means for providing graphical displays associated with one or more messages that have been automatically classified according to a priority of the respective messages; and means for configuring the graphical displays according to one or more user preferences associated with the priority and delivery of the one or more messages (Figs. 4, 20-22; column 6: line 1-39; column 10, line 57-60: The message form displays the quantity and type of devices to receive messages, as obtained from the various collective recipient profiles). Smith does not show (claim 40) the one or more user preferences includes one or more deferral policies that are given as bounds such that a message of a particular priority will not wait more than a predetermined amount of time before being displayed to a user.

b. Abu-Hakima shows (claim 40) the one or more user preferences includes one or more

    deferral policies that are given as bounds such that a message of a particular priority

    will not wait more than a predetermined amount of time before being displayed to a

    user (column 7, line 25-64) in an analogous art for the purpose of intelligently

    managing electronic messages.

c. It would have been obvious to a person of ordinary skill in the art at the time of the

    invention was made to combine Smith's functions of delivering messages and

    processing message responses with Abu-Hakima's functions of automatic user

    knowledge and behavior learning system.

d. The modification would have been obvious because one of ordinary skill in the art

    would have been motivated to integrate automatic user knowledge and behavior

    learning functions per Abu-Hakima's teaching into a universal message management

    system per Smith's teaching (column 11, line 33-37: take full advantage of the

    communications, scheduling and priority extensions to enhance their business

    productivity).

Together Smith and Abu-Hakima disclosed all limitations of claim 40. Claim 40 is rejected

under 35 U.S.C. 103(a).

16.   Claims 41-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Juha

Takkinen (CAFE: A Conceptual Model for Managing Information in Electronic Mail),

hereinafter referred as Takkinen in view of Badt and Eric.

a. Takkinen shows (claim 41) a method for delivering messages to a device, comprising:

    scheduling a period when one or more user profiles are activated (page 47, section 3:

CAFE, busy, cool and curious modes); configuring at least one set of parameters for the one or more profiles (page 47, right column, line 41-45; page 52, section 6, 1st paragraph); assigning priority values to one or more messages (page 48, left column, 2nd paragraph: busy mode); and delivering the one or more messages based at least in part on the priority values, the profile that is activated, and the at least one set of parameters (page 47, section 3: CAFE, busy, cool and curious modes). Takkinen does not show (claim 41) wherein a voice message is assigned a priority value based at least in part on acoustical properties of the voice message, wherein the acoustical property include at least one of temporal rate pattern, pitch, inflection, or overall energy associated with the voice message, and wherein a higher value for the acoustical property results in a higher assigned priority.

b. Badt shows (claim 41) wherein a voice message is assigned a priority value based at least in part on acoustical properties of the voice message (column 4, line 40-60) in an analogous art for the purpose of audio notification management system.

c. Eric shows (claim 1) wherein the one or more acoustical properties include at least one of temporal rate pattern, pitch, inflection, or overall energy associated with the voice message, and wherein a higher value for the one or more acoustical property results in a higher assigned priority (2nd paragraph on left column on page 2: acoustic clues; 5th paragraph on right column on page 5 to 3rd paragraph on left column on page 6: temporal pattern recognition with rate consideration) in an analogous art for the purpose of Bayesian user modeling for inferring the goals and needs of software users.

d. It would have been obvious to a person of ordinary skill in the art at the time of the

    invention was made to modify Takkinen's functions of managing information in

    electronic mail with Badt's functions of audio notification management and Eric's

    functions of inferring software users with acoustic clues.

e. The modification would have been obvious because one of ordinary skill in the art

    would have been motivated to integrate audio notification and voice mail functions

    per Badt's teaching and inferring software users with acoustic clues per Eric's

    teaching into electronic mail management system per Takkinen's teaching (abstract).

f. Regarding claim 42, Takkinen shows further comprising assigning at least one of a

    color and a sound to indicate the priority of the messages (page 45, section 2.2; page

    46, section 2.3).

g. Regarding claim 43, Takkinen shows further comprising deferring messages until a

    more convenient time established by the user (page 52, section 6, 1st paragraph:

    calendar).

h. Regarding claim 44, Takkinen shows further comprising providing status information

    relating to why a message is of a determined priority (page 48, left column, 2nd and

    4th paragraphs: busy and curious modes).

i. Regarding claim 45, Takkinen shows further comprising observing a previous history

    of activity and providing feedback as to a message delivery volume based upon the

    history (page 48, left column, 2nd and 4th paragraphs: curious modes; page 51, section

    5, 3rd paragraph).

j. Regarding claim 46, Takkinen shows further comprising employing an information agent to consider restrictions from other parties before delivering the one or more messages (page 47, left column, line 20-24).

k. Regarding claim 47, Takkinen shows further comprising activating one or more rules that operate to influence when messages are sent to a user (page 47, left column, 3rd and 6th paragraphs, page 50, section 41, 1st paragraph, page 51, section 5, 3rd paragraph).

l. Regarding claim 48, Takkinen shows the one or more rules include an if and then construct such that if an event occurs then a message is automatically assigned a predetermined priority (page 47, left column, 6th paragraphs: groupware, group schedule).

m. Regarding claim 49, Takkinen shows the one or more rules include an if and then construct such that if an event occurs then a priority value of a learning process is disclosed (page 46, left column, 1st paragraph; page 49, left column, last paragraph-right column, 1st and 2nd paragraph; page 51, left column, section 5, 3rd paragraph).

n. Regarding claim 50, Takkinen shows the one or more rules include an if and then construct such that if a message is received from a selected communications channel, then a message is automatically assigned a predetermined priority (page 47, left column, 6th and last paragraphs: route, print, and phone message; page 51, left column, 2nd paragraph: voice).

o. Regarding claim 51, Takkinen shows further comprising automatically reviewing

messages by an order determined by the priority value (page 47, left column, 2nd, 6th

and last paragraphs).

Together Takkinen, Badt and Eric disclosed all limitations of claims 41-51. Claims 41-51 are

rejected under 35 U.S.C. 103(a).

17.   Claims 41-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takkinen,

Badt, Eric and further in view of Abu-Hakima.

a. Takkinen, Badt and Eric show claim 41 as above. None of Takkinen, Badt and Eric

shows (claim 52) further comprising automatically calling the user if the priority

value is above a predetermined threshold.

b. Abu-Hakima shows (claim 52) further comprising automatically calling the user if the

priority value is above a predetermined threshold (column 7, lines 12-17) in an

analogous art for the purpose of intelligently managing electronic messages.

p. It would have been obvious to a person of ordinary skill in the art at the time of the

invention was made to modify Takkinen's functions of managing information in

electronic mail with Badt's functions of audio notification management, Eric's

functions of inferring software users with acoustic clues and Abu-Hakima's functions

of message forwarding and e-message media conversion agent.

q. The modification would have been obvious because one of ordinary skill in the art

would have been motivated to integrate audio notification and voice mail functions

per Badt's and and Abu-Hakima's teaching, and inferring software users with

acoustic clues per Eric's teaching into electronic mail management system per

Takkinen's teaching (abstract).

c. Regarding claim 53, Abu-Hakima shows further comprising converting audio

messages into text (column 9, lines 40-65).

d. Regarding claim 54, Abu-Hakima shows further comprising determining a priority

for the messages based upon at least one of the pitch, rate, content, and inflection of

the messages (column 9, lines 40-65).

Together Takkinen, Badt, Eric and Abu-Hakima disclosed all limitations of claims 52-54.

Claims 52-54 are rejected under 35 U.S.C. 103(a).

18.   Claims 55-68, 70-71 and 74-77 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Abu-Hakima in view of Wright.

a. Abu-Hakima shows (claim 55) a user interface for an adaptive prioritization and

routing system, comprising: one or more controls and displays to at least one of

acquire user preferences, inspect behavior, and guide learning and decision policies of

the adaptive prioritization and routing system (column 8, line 36-48; column 9, line

15-39); and a user interface associated with the one or more controls and displays that

facilitates inspection, control and learning associated with alerting and routing

prioritized messages (column 9, line 15-39; column 11, line 19-25). Abu-Hakima

does not show (claim 55) wherein the user preferences includes a user defined

amount of time of inactivity of a message retrieval device, wherein the user defined

amount of time is a threshold where messages are held back from delivery to the

message retrieval device when the threshold is exceeded.

b. Wright shows (claim 55) wherein the user preferences includes a user defined amount of time of inactivity of a message retrieval device (column 27, line 26-34: the subscriber MAC layer is only permitted to add additional data packets to the transmission queue while in the idle state), wherein the user defined amount of time is a threshold where messages are held back from delivery to the message retrieval device when the threshold is exceeded (column 27, line 26-34: wait for a predetermined number of data packets to be queued or for an implementation specific time) in an analogous art for transmitting data packets over radio network using carrier sense multiple access (CSMA).

c. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Abu-Hakima's functions of interpreting and managing electronic messages with Wright's functions of packet transmitting.

d. The modification would have been obvious because one of ordinary skill in the art would have been motivated to integrate scheduling the message delivery to a device, e.g. mobile or across LAN, according to device's access control capability, including holding a number of messages to be delivered once per Wright's teaching into electronic mail management system per Abu-Hakima's teaching (abatract).

e. Regarding claim 56, Abu-Hakima shows further comprising a plurality of parameters that are configured in conjunction with various configuration and adjustment options to facilitate personalization of the user interface (column 8, line 36-48; column 9, line 15-39).

f.   Regarding claim 57, Abu-Hakima shows the personalization includes at least one of employing explicit and implicit user feedback relating to how messages are classified and subsequently provided to the user (column 8, line 49-56).

g.   Regarding claim 58, Abu-Hakima shows the feedback is employed to guide learning and decision policies in the adaptive prioritization and routing system (column 11, line 19-25).

h.   Regarding claim 59, Abu-Hakima shows the feedback includes dialog that is provided to users to further refine at least one of learning and decision policies in the adaptive prioritization and routing system (column 11, line 19-25).

i.   Regarding claim 60, Abu-Hakima shows the explicit feedback includes such actions as configuring the user interface to consider a selection of messages as being more important than another selection of messages and altering learning about how decisions are made regarding message urgency (column 4, line 14-26; column 11, line 19-25).

j.   Regarding claim 61, Abu-Hakima shows the implicit feedback includes monitoring various context aspects of the user to determine message importance (column 10, line 41-47).

k.   Regarding claim 62, Abu-Hakima shows the implicit feedback includes at least one of monitoring sounds, keyboard activities, presence detectors, pauses when reviewing messages, how quickly messages are opened and deleted, and whether messages are saved, copied and forwarded (column 6, line 38-41; column 10, line 50-63; column 10, line 24-30).

l. Regarding claim 63, Abu-Hakima shows the feedback includes directing messages to

the user regarding learning decisions such as at least one of "You are about to delete

messages that have not yet been employed in the learning process," and messages

relating to how and why messages were classified a certain priority (column 10, line

24-40; column 11, line 19-25).

m. Regarding claim 64, Abu-Hakima shows further comprising one or more

configuration and adjustment options that include at least one of profile options,

routing options, alerting options, chunking options, schedule options, and context-

sensitive control options (column 8, line 36-48).

n. Regarding claim 65, Wright shows (claim 65) the chunking options include grouping

M messages, M being an integer, the M messages are held as a group before delivery

of the messages to the user (column 27, line 26-34: wait for a predetermined number

of data packets to be queued or for an implementation specific time).

o. Regarding claim 66, Abu-Hakima shows further comprising one or more rules that

act in conjunction with a routing system, learning status and configuration options for

guiding and inspecting the state of learning of a message urgency system (column 5,

line 35-57).

p. Regarding claim 67, Abu-Hakima shows the one or more rules including conditions

that are applied in at least one of a disjunctive and a conjunctive manner (column 5,

line 35-57).

q. Regarding claim 68, Abu-Hakima shows further comprising one or more device

option configurations for controlling message output to a selected message reception

and display device (column 8, line 36-48; page 9, line 39-65).

r. Regarding claim 70, Abu-Hakima shows further comprising a priority threshold

adjustment that facilitates control of how many messages are sent to a users device

(column 8, line 36-48).

s. Regarding claim 71, Abu-Hakima shows further comprising an overlay adjustment

that limits the number of messages sent to the users device per a given timeframe

(column 8, line 36-48).

t. Regarding claim 74, Abu-Hakima shows further comprising one or more deferral

policies that are given as bounds such that a message of a particular urgency will not

wait more than at least one of a predetermined and dynamically computed upper limit

of time (column 7, line 25-64).

u. Regarding claim 75, Abu-Hakima shows the policies are at least in part based on a

function of the message urgency (page 7, line 25-64).

v. Regarding claim 76, Abu-Hakima shows a user specifies at least one of that a

message of high urgency should be transmitted with an alert to one or more active

devices as soon as possible and to be available for review if the user happens to

inspect messages that are waiting (page 7, line 25-64).

w. Regarding claim 77, Abu-Hakima shows further comprising a policy that if the user is

more than a specified level of non-interruptability and the message has not been

observed, then wait a predetermined time before alerting the user (page 7, line 25-58).

Together Abu-Hakima and Wright disclosed all limitations of claims 55-68, 70-71 and 74-77.

Claims 55-68, 70-71 and 74-77 are rejected under 35 U.S.C. 103(a).

19.   Claim 69 is rejected under 35 U.S.C. 103(a) as being unpatentable over Abu-Hakima,

Wright and further in view of Eric.

    a. Abu-Hakima and Wright show claim 55 as above. Neither Abu-Hakima nor Wright

        shows (claim 69) further comprising prioritized messages having acoustical

        properties including at least one of prosadic features, temporal patterns of rate, pitch,

        inflections, and an overall energy associated with voice messages.

    b. Eric shows (claim 69) further comprising prioritized messages having acoustical

        properties including at least one of prosadic features, temporal patterns of rate, pitch,

        inflections, and an overall energy associated with voice messages (2nd paragraph on

        left column on page 2: acoustic clues; 5th paragraph on right column on page 5 to 3rd

        paragraph on left column on page 6: temporal pattern recognition with rate

        consideration) in an analogous art for the purpose of Bayesian user modeling for

        inferring the goals and needs of software users.

    c. It would have been obvious to a person of ordinary skill in the art at the time of the

        invention was made to modify Abu-Hakima's functions of interpreting and managing

        electronic messages with Wright's functions of packet transmitting and Eric's

        functions of inferring software users with acoustic clues.

    d. The modification would have been obvious because one of ordinary skill in the art

        would have been motivated to integrate scheduling the message delivery to a device,

        e.g. mobile or across LAN, according to device's access control capability, including

holding a number of messages to be delivered once per Wright's teaching and

inferring software users with acoustic clues per Eric's teaching into electronic mail

management system per Abu-Hakima's teaching (abatract).

Together Abu-Hakima, Wright and Eric disclosed all limitations of claim 69. Claim 69 is

rejected under 35 U.S.C. 103(a).

20.   Claims 72-73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abu-

Hakima, Wright and further in view of and Eggleston.

> a. Abu-Hakima and Wright show claim 55 as above. Neither Abu-Hakima nor Wright
>
>   shows (claim 72) further comprising a threshold adjustment that is employed as a
>
>   bound on the total dollars allotted for forwarding messages to a user.
>
> b. Eggleston shows (claim 72) further comprising a threshold adjustment that is
>
>   employed as a bound on the total dollars allotted for forwarding messages to a user
>
>   (column 3, line 62-67) in an analogous art for transmitting data packets over radio
>
>   network.
>
> c. It would have been obvious to a person of ordinary skill in the art at the time of the
>
>   invention was made to modify Abu-Hakima's functions of interpreting and managing
>
>   electronic messages with Wright's functions of packet transmitting and Eggleston's
>
>   functions of message usage control.
>
> d. The modification would have been obvious because one of ordinary skill in the art
>
>   would have been motivated to integrate scheduling the message delivery to a device,
>
>   e.g. mobile or across LAN, according to device's access control capability, including
>
>   holding a number of messages to be delivered once per Wright's teaching and usage

and charge control function per Eggleston's teaching into electronic mail

management system per Abu-Hakima's teaching (abatract).

e. Regarding claim 73, Eggleston shows the user specifies that a system sends the most

urgent messages, but at a certain cost per message by a routing company, adjust the

threshold so that it would expect to stay within a certain cost per day (column 3, line

62-67).

Together Abu-Hakima, Wright and Eggleston disclosed all limitations of claims 72-73.

Claims 72-73 are rejected under 35 U.S.C. 103(a).

Response to Arguments

21.   Applicant's arguments dated 05/14/2007 with respect to pending claims have been

considered but are moot in view of the new ground(s) of rejection.

a. Applicant has amended independent claims 1, 23, 40-41, 55 and 78. Examiner has

    reviewed the amended claim changes in light of applicant's original specification and

    claim language. Examiner has reviewed claim rejections and applied prior arts as per

    office action dated 09/20/2005. Examiner has further searched and identified

    additional art, i.e. Eric, et al. (Proceedings of the Fourteenth Conference on

    Uncertainty in Artificial Intelligence, Madison, WI, July 1998, pages 256-265) The

    Lumiere Project: Bayesian User Modeling for Inferring the Goals and Needs of

    Software Users. The claim rejections are updated to reflect the amended claim

    changes with respect the applied prior arts including Eric.

b. Applicant's arguments are based on the amended claim changes. The above claim

    rejections based on the current claim language should address applicant's current

    arguments.

Remarks

22.   The following pertaining arts are discovered and not used in this office action. Office

reserves the right to use these arts in later actions.

a. Theimer et al. (US 5493692 A) Selective delivery of electronic messages in a

multiple computer system based on context and environment of a user

b. Eric, et al. (Proceedings of UAI '99, Conference on Uncertainty and Artificial

Intelligence, Stockholm, Sweden, July 1999, pages 305-313) Attention-Sensitive

Alerting

Conclusion

23.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure. Refer to the enclosed PTO-892 for details.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Peling A. Shaw whose telephone number is (571) 272-7968. The

examiner can normally be reached on M-F 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, William C. Vaughn can be reached on (571) 272-3922. The fax phone number for

the organization where this application or proceeding is assigned is (571) 273-8300.

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